Reprinted from Jute Development Journal, January-March, 1989

Genetic resources of jute in North Eastern India

B. SASIKUMAR[1] and S. SARDANA[2]
ICAR Research Complex for N. E.H. Region, Tripura Centre, Lumbucherra, West Tripura

Jute is an important fibre yielding plant. Bangladesh and India are the major jute producing countries of the world. As the origin of jute (*Corchorus capsularis*) is believed to be in the Indo-Burman region, it is thought appropriate to evaluate the jute germplasm material available at our centre. Two hundred jute germplasm collected from the various states of North Eastern India have been maintained at our centre.

MATERIALS AND METHODS

Two hundred jute collections (*Corchorus capsularis-183 ; Corchorus olitorius-17)* were evaluated for days to 50% flowering, plant height (cm), No. of internodes/plant, basal diameter (cm) and dry fibre yield/plant (g). The experiment was laid out in a randomized block design having 2 replications during the year 1986. A single plot had 3 rows of 10 plants each with an inter and intra row spacing of 30 and 10 cm, respectively. The crop was raised as per the standard practice in vogue.

RESULTS AND DISCUSSION

Significant differences were observed among the entries with respect to the five characters studied. Range, mean and variance for the different characters are given in Table below. Fifty per cent flowering ranged from 76 days to 110 days with a mean of 188.6 days. Plant height among the entries varied from 149.33 to 473.67 cm with a mean height of 294.01 cm. A range of 0.90 to 2.10 cm was observed for basal diameter with an average diameter of 1.39 cm. No. of internodes/plant varied from 39 to 100.

Table : Range, mean and variance for different characters in jute germplasm

Characters	Range	Mean	Variance
Days to 50% flowering	76.0—116.0	188.61	57.25
Plant height	149.33—473.67	294.01	2,118.76
Basal diameter	0.90—2.10	1.39	0.056
No. of internodes/plant	39.0—100.0	65.11	84.46
Dry fibre yield	2.0—22.0	9.38	13.69

This trait had a general mean of 65.11. A wide variation ranging from 2.0 to 22.0 g was observed for dry fibre yield/plant with a mean of 9.38 g. Maximum variance was observed for plant height followed by No. of internodes/plant. Days to 50% flowering also had considerable variance. Dry fibre yield per plant had low variance. Least variance was observed for basal diameter. As plant height is an important yield contributing trait in jute selection for tall plant habit among the germplasm material would be beneficial for improving dry fibre yield per plant.

As regards the colour of the stem majority of the entries were having green coloured stems. However, few collections were also having red or deep red stems.

[1] & [2] Scientist S-1 and Scientist S-2 (Plant Breeding).

——:——

MGIP (Pub. Unit), Sant.—S16 - 2 Agri/89—17-2-90—25 Copies.